

Department of Health & Human Services  
Division of Environmental and Consumer Health Services



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**FORM 5**  
**DESIGN OF PRESSURE DOSING SYSTEM**

1. Configuration of Distribution Network: Type of Manifold:  End  Central Distribution

Laterals: Number \_\_\_\_\_ Length, ft \_\_\_\_\_ Diameter, in \_\_\_\_\_

Tot. Lateral Vol ( $V_1$ ), gals \_\_\_\_\_

Hole Diameter, in \_\_\_\_\_ Hole Spacing, in \_\_\_\_\_ Number of Laterals, n \_\_\_\_\_

2. Lateral Discharge Rate: Design Pressure Head at Distal End of Laterals ( $H_p$ ), ft \_\_\_\_\_

Hole Discharge Rate, Q, gpm \_\_\_\_\_ Number of Holes per Lateral, n \_\_\_\_\_

Lateral Discharge Rate, ( $Q \times n$ ) gpm \_\_\_\_\_

3. Manifold Length, ft \_\_\_\_\_ Manifold Diameter, in \_\_\_\_\_, Total Manifold Vol. ( $V_m$ ) \_\_\_\_\_

4. System Discharge Rate, gpm \_\_\_\_\_

5. Dose Volume: Daily Volume of Sewage (Q), gpd \_\_\_\_\_ Design Permeability, in/hr \_\_\_\_\_

or Percolation Rate, min/in \_\_\_\_\_ Total Volume of Delivery Pipe ( $V_p$ ) \_\_\_\_\_

Internal Volume of Distribution Network (V), ( $V_p + V_m + V_1$ ) \_\_\_\_\_ Dose Volume ( $V_d$ ) \_\_\_\_\_

6a. Pump Selection: Length of Delivery Pipe, ft \_\_\_\_\_ Diameter of Delivery Pipe, in \_\_\_\_\_

Friction Loss in Delivery Pipe ( $H_f$ ), ft \_\_\_\_\_ Elevation of Dosing Tank Low Water Level \_\_\_\_\_

Elevation of Lateral Invert \_\_\_\_\_ Elevation Head ( $H_e$ ), ft \_\_\_\_\_

Total Operating Head ( $H_t$ ), ( $H_p + H_f + H_e$ ), ft \_\_\_\_\_ Pump Model \_\_\_\_\_

Rated Horsepower \_\_\_\_\_ Pump Discharge Rate at Total Operating Head, gpm \_\_\_\_\_

6b. Siphon Elevation: Diameter of Delivery Pipe, in \_\_\_\_\_ Length of Delivery Pipe, ft \_\_\_\_\_

Friction Loss in Delivery Pipe,  $H_f$ , ft \_\_\_\_\_ Velocity Head,  $H_n$ , ft \_\_\_\_\_

Total Operating Head ( $H_t$ ), ( $H_p + H_f + H_n$ ), ft \_\_\_\_\_ Elevation of Lateral Invert \_\_\_\_\_

Elevation of Siphon Invert \_\_\_\_\_

7. I hereby certify that the information furnished on Form 5 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_